

## **REMARKS**

### **I. General Comments**

In the Office Action Summary, under item 6, the Examiner stated that claims 44-58 are rejected. The Applicants bring to the Examiner's attention that the claims under consideration are 44-48. At page 2 of the Office Action under item 5, the Examiner stated that claims 49-54 are withdrawn from further consideration. The Applicants bring to the Examiner's attention, that claims 49-53 are withdrawn from further consideration.

### **II. Request For Rejoining Of Non-Elected Species**

In the Office Action Summary, under item 4, the Examiner acknowledges what she believes "applicant's election without traverse of group I, claims 44-48 and election of 'Fab' as species of binding molecule." The Applicants did elect Group I without traverse, however, the election of Fab as a species was traversed on the basis that claim 44 was generic, allowable and therefore, the non-elected species should be included with the generic claim. The Applicants bring to the Examiner's attention that in related case, U.S. patent 6,172,197, a set of claims similarly generic was correctly allowed without restriction to particular species.

In view of the fact that claim 44 is generic and allowable (as discussed above), the Applicants request that the non-elected species be rejoined with the generic claim.

### **III. Support for Amendments**

Support for the amendment "or a polypeptide chain component of the binding molecule" is found throughout the specification. The specification also provides experimental exemplification of Fab display both where the two polypeptide chain components of the binding molecules are included in nucleic acid that is packaged in the genome (e.g., Example 25, including Figure 27) and where one polypeptide chain component is packaged while the other is expressed separately (e.g., Example 7), with both chains associating to form the binding molecule displayed on the surface of the particle.

#### IV. Patentability Arguments

##### A. The Rejections Under 35 U.S.C. §102 (a or e) Should Be Withdrawn

The Examiner has rejected claims 44-48 under 35 U.S.C. § 102 (a or e) as allegedly being anticipated by U.S. Patent 5,427,908 to Dower *et al.* (Dower).

Specifically, the Examiner alleges that Dower *et al.* teach DNA libraries prepared from cells encoding the protein [of] interest and inserted into or adjacent to a coat protein [in] a bacteriophage vector. In order to anticipate the instant invention, Dower must teach all of the invention's elements.

The Applicants respectfully submit that the rejections under 35 USC §§ 102(a or e) over Dower should be withdrawn because Dower fails to teach *inter alia* use of any filamentous bacteriophage particle containing any phagemid genome to display antibody molecules as presently claimed. Nowhere is this disclosed nor suggested by Dower.

The absence of any disclosure in this respect in Dower cannot be doubted. However, it can be further noted that Dower later supplemented it's disclosure specifically to introduce the idea of phagemids in PCT/US91/02989 (WO 91/17271) (the Dower PCT application) filed a year after the filing date of the U. S. application that led to the Dower patent and after the priority date of the present application. The Dower PCT application is nearly identical to the U.S. priority application except for a passage added to the application on pages 9 and 10 which introduces for the first time both scFvs and phagemids. The inserted passage is marked on the accompanying copy of the relevant pages of WO 91/17271 attached hereto as Exhibit A. On page 9 beginning on line 26 of the PCT application, Dower states,

In yet another approach, one or both of the antibody light and heavy chains (or the V regions thereof) can be expressed by a phagemid, that is, a vector which combines features of plasmids, such as a ColE1 origin of replication, and filamentous bacteriophages such as the major intergenic region.

The remainder of the relevant passage is shown in Exhibit A. The addition of this disclosure to the later-filed PCT application emphasizes the absence of any suggestion in cited Dower itself.

Because Dower fails to teach phagemid display, a failing made all the more conspicuous by the insertion of a description of phagemids into their PCT application a year later, and after the priority date of the present application, the Dower patent cannot anticipate the presently claimed invention. On that basis, as a matter of law, the rejections under 102 (a or e) over Dower are improper and should be withdrawn. Such withdrawal is requested, along with prompt allowance of the application.

**B. The Obviousness-Type Double Patenting Rejections Should Be Withdrawn**

The Examiner has rejected claims 44-48 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 6,172,197 B1 and claims 1-59 (specifically claim 22) of U.S. Patent No. 5,969,108. To obviate the double patenting rejections over each of the two patents, the Applicants submit herewith terminal disclaimers in compliance with 37 CFR 1.321(c).

The Examiner has also provisionally rejected claims 44-48 under the judicially created doctrine of provisional obviousness-type double patenting as being provisionally unpatentable over co-pending U.S. applications Nos. 09/196,522, 09/309,639, 09/417,478, 09/417,479, 09/196,586 and 09/706,507. The Applicants submit herewith terminal disclaimers in compliance with 37 CFR 1.321(c) to obviate the provisional double patenting rejections over each of the six co-pending patent applications. In view of the foregoing, the Applicants request withdrawal of all of the obviousness-type double patenting rejections.

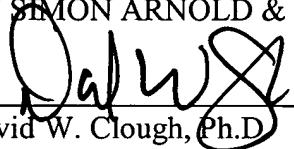
### Conclusion

The Applicants respectfully submit that the pending claims are in condition for allowance and early notification thereof is requested. If in the interest of expediting prosecution, the Examiner has questions or comments she is invited to telephone the undersigned at the indicated telephone number.

Respectfully submitted,

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